

# Designed for Modern **WASTEWATER**



## **Grundfos S-tube** impeller

The S-tube offers greater hydraulic efficiency than any other type of wastewater impeller, without compromising free passage. This results in the lowest life cycle cost, trouble free operation and best-in-class non-clogging capabilities. When packaging this innovative and simple impeller design into the smart designed SL and SE ranges; adding auto adaptive intelligent controls and NEMA premium motor components, the result is the ultimate solution in wastewater pumping technology. With the S-tube, Grundfos sets new standards for wastewater hydraulic design. The S-tube resolves the challenges with sealing, vibration, abrasive wear and clogging that owners of wastewater pumping stations have lived with in the past.



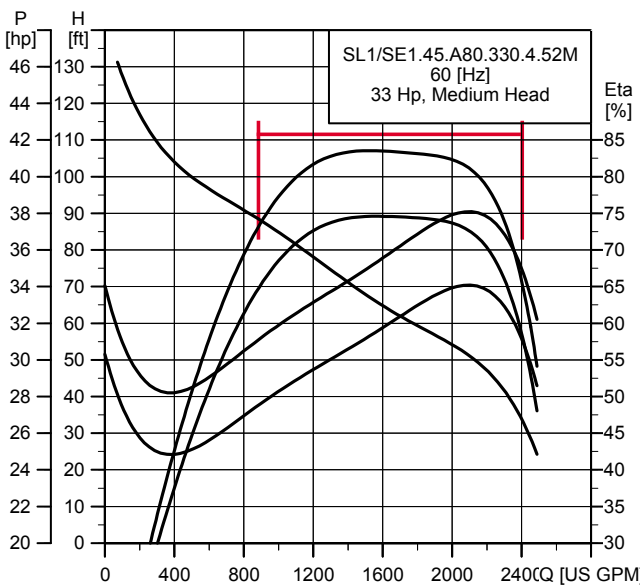
## **Why is the S-tube so special?**

During the development the goal was state-of-the-art hydraulics, simple yet innovative. The end game was not just chasing the highest efficiency at a specific duty point; the new hydraulics needed to have extremely high efficiencies over a wider range of the curve than can be seen in the market today. The S-tube experience is functioning with the highest efficiency over a wider range, pumping the largest free passage and at the lowest vibrations. Simplicity is at the heart of the S-tube impeller; using a design as simple and robust as a tube – no edges, dead zones, cutting functions or alternative constructions that wear over time – resulting in longer lifetime.

## **Why focus on free passage?**

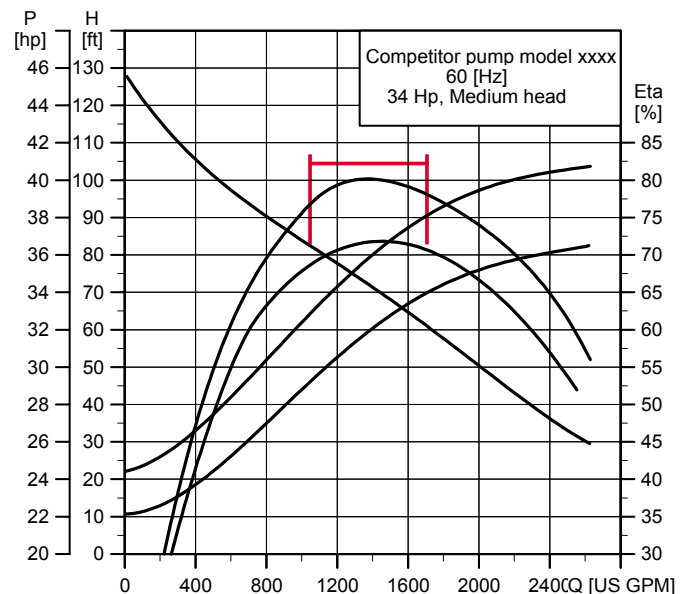
Why is free passage so important? The answer is quite simple; greater free passage means better solids handling and greater non-clogging capabilities. The content of wastewater has changed drastically over the years, which is why the hydraulics designed 10, 20 or 30 years ago does not meet today's wastewater challenges.

This is why the innovative S-tube impeller is the best at fulfilling the core function for which a wastewater impeller is designed – providing the end-user with trouble-free operation at the highest possible efficiency. As the S-tube increases in flow range, the simple design means that the free passage also increases. The S-tube is truly designed for today's wastewater and when used to extreme levels, it does not disappoint.



**S-TUBE**

- BEP = 83.4% hydraulic efficiency
- BEP = 74.9% overall efficiency
- Approximately 55% of the curve is above 75% hydraulic efficiency
- Free passage 4.5"



**SEMI OPEN IMPELLER**

- BEP = 80.2% hydraulic efficiency
- BEP = 71.8% overall efficiency
- Approximately 35% of the curve is above 75% hydraulic efficiency
- Free passage 2.5"

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